

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

CAROL S. MARCELLIN, individually, and as
Co-Administrator of the Estate of Charles E.
Hollowell, deceased, and JESSICA
HOLLOWELL-McKAY, as Co-Administrator of
the Estate of Charles E. Hollowell, deceased,

Plaintiffs,

v.

HP, INC., and STAPLES, INC.,

Defendants.

**Civ. No. 1:21-cv-00704-
JLS**

**REPLY MEMORANDUM OF LAW IN SUPPORT OF
MOTION TO PRECLUDE REPORTS AND TESTIMONY OF STEVE MARTIN**

Defendants HP Inc. and Staples, Inc. hereby submit this reply memorandum of law in support of their motion to preclude the reports and testimony of plaintiff's expert Steve Martin, PhD under Rule 702 of the Federal Rules of Evidence.

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SUMMARY OF ARGUMENT

The opinion of plaintiff's battery expert Steve Martin concerning thermal runaway temperatures of lithium-ion batteries should be excluded as unreliable under Federal Rule of Evidence 702 because even after two reports, a deposition, and now a supplemental declaration, he still continues to misinterpret the scientific studies upon which he relies. Further, Martin's alternative design opinion is not reliable because he performed no calculations, tests, exemplar examination, or risk-utility analysis. Finally, Plaintiff concedes Martin offers no opinion on warnings. The motion to preclude Martin should be granted.

ARGUMENT

1. Martin's opinions concerning thermal runaway temperatures of lithium-ion batteries is unreliable because he continues to misinterpret the oven test

In reliance on the article "Gas explosions and thermal runaways during external heating abuse of commercial lithium-ion graphite-LiCoO₂ cells at different levels of aging" by Fredrik Larsson, Martin offers the opinion that there would need to be "a thermal layer temperature in excess of 300° C (572° F) for a period of over an hour for [an] external fire source to have provoked the thermal runaway reaction" in the notebook computer here. Dkt. # 67-5 at 3. This opinion, however, is based solely on his misinterpretation of the Larsson study, which involved an oven that was only heated to 190°, not 300°. The oven was not heated to 300° for one minute, let alone heated at that temperature for over an hour. Martin's opinion is thus at variance with the Larsson article on which it purports to rely as to both **time** and **temperature**. This is not a matter of debate or a difference of opinion. The Larsson article says what it says. Defendants have submitted it into the record and it does not say what Martin says it says. Indeed, plaintiffs' opposition amounts to an admission on this point because, having missed the mark as to both time and temperature, plaintiff now argues that Martin's opinion is still somehow reliable,

because Martin claims that the thin plastic material around the notebook battery cells would provide meaningful insulation such so that it would change the heat transfer rate and the thermal runaway temperature and time. Dkt. # 72-5 at 10-11. In other words, Martin who purported to rely on the Larsson article now contends it is inapplicable! However, Martin offers no reliable data, or any data at all, to justify this claim: Martin testified and plaintiff points out that Martin could have tested and calculated these rates of increase. Dkt. # 72-5, citing Dkt. # 67-4 at 83. But Martin never did so. Martin did not quantify what he admits it is quantifiable—instead he simply picked numbers contained neither within Larsson’s paper nor derived from any verifiable work of his own.

Because Martin’s opinion was based on this unreliable methodology, it must be excluded under F.R.E. 702. Even in opposition, plaintiff points to Martin’s deposition testimony that demonstrates his continued misinterpretation of the Larsson study. Plaintiff quotes Martin’s deposition testimony, wherein he testified that “You know, typical cells will go into thermal runaway when heated above 200 degrees. Celsius. **It takes a 300 degree oven to get it to that.**” Dkt. # 72-5, citing Dkt. # 67-4 at 242 (emphasis added). Again, this is blatantly wrong.

Plaintiff apparently concedes that the Larsson test comprises the sum of the authority he cites for his opinion that “[t]he fire could not have been raging for over an hour before Carol Marcellin responded to the smoke alarm, the time it has been documented in the Larsson study for such lithium ion battery cells to reach thermal runaway from an external heating source.” Dkt. # 67-5 at 14. This is because plaintiff identifies no other authority upon which Martin relied beyond his “general knowledge of designing ovens, designing furnaces more generally, and their characteristics impact on temperatures of materials.” Dkt. # 72-5 at 11, citing Dkt. # 67-4 at 83.

Indeed, plaintiff points to Martin’s testimony wherein he further claimed, “We do a

calculation in my lab. If the furnace temperature inside is one temperature, then you've got a body inside the furnace like a lithium-ion battery. What's the rate of increase of temperature that that body would reach based upon the furnace temperature." Dkt. # 72-5 at 11, citing Dkt. # 67-4 at 83. ***But Martin never performed any calculations or experiments in this case.*** Thus, there is no way to test his unsupported statement. Indeed, had Martin performed calculations or experiments in this case, he might have avoided another misinterpretation of the Larsson study that makes his opinions unreliable and inadmissible. In opposition, plaintiff submits a supplemental declaration from Martin stating that the "batteries in the subject laptop heated up more slowly than in the oven used in the Larsson paper." Dkt. 72-5 at 12. Martin does not calculate the different rates of heating—although he testified he could have done so—but reaches this conclusion based on his assumption that the plastic casing of the cells and pack would somehow provide meaningfully insulation. He points to no study, test, reference manual or peer-reviewed journal to support this ludicrous position.

Further, Martin's opinion completely overlooks that the notebook was plugged in, energized and allegedly operating on the night of the fire, which affected both the operating temperature of the battery and the rate of heat transfer. Indeed, it is Martin's specific opinion that the energized state of the battery was essential to the happening of the fire—the cells in the battery pack were overcharged or overvoltage causing excessive temperatures and prompting thermal runaway. Dkt. # 67-3 at 22. Thus, Martin's reliance upon Larsson for the proposition that "[t]he fire could not have been raging for over an hour before Carol Marcellin responded to the smoke alarm, the time it has been documented in the Larsson study for such lithium ion battery cells to reach thermal runaway from an external heating source" is misplaced. Dkt. # 67-5 at 14.

Finally, plaintiff suggests that Martin's opinion is still somehow reliable, even if he was

wrong about both time, and temperature, and the temperature required for an external fire to result in thermal runaway per Larsson is actually 194° C instead of 300°, and the time required is actually 18 minutes instead of greater than 60. Dkt. # 72-5 at 13. This obviously does not meet the threshold of reliable, admissible expert evidence under Rule 702. Further, it bears emphasis that that the response time from the time of report for this fire was 18 minutes, Dkt. # 66-12 at 294-5,—thus, it is axiomatic that the fire in this case was burning for a greater interval of time than 18 minutes. The motion to preclude should be granted.

2. Martin’s alternative design opinion is not reliable because he performed no calculations, tests, exemplar examination, or risk-utility analysis

As an initial matter, Plaintiff apparently concedes that Martin can identify no industry standard or notebook computer manufacturer that deployed the notebook battery authentication design that he opines should have been used in this notebook computer. Dkt. # 72-5 at 13-14. Nor does Plaintiff dispute the expert evidence submitted by HP that “at the time of the computer’s manufacture, there were no requirements, guidance, or recommendations with respect to the presentation of an on-screen warning related to safety information regarding a counterfeit and/or unauthorized third-party battery.” Dkt # 67-2 at ¶ 7.

Ultimately, the sole industry standard in favor of the authentication design that plaintiff herself purports to identify—as described in *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 530 (6th Cir. 2004)—goes directly against her argument. First, Lexmark concerned authentication of *printer toner cartridges*, not notebook computer batteries. Thus, Lexmark is akin to the Texas Instruments document relied upon by Martin—which references only “portable devices, such as cellular phones, PDAs, and DVD players.” Dkt. # 72-3 at 1. Neither applies, on their face, to notebook computers. The fact that plaintiff relies on facially inapplicable support is demonstrative that no such standard existed pertaining to notebook

computers.

Second, the facts at issue in *Lexmark* further illustrate Martin's unreliability and the inadmissibility of his opinions. In *Lexmark*, the plaintiff printer manufacturer, which manufactured a microchip using SHA-1 authentication (that Martin contends HP should have used) in its printer cartridges to prevent them from being re-filled by third parties, sought to enjoin the defendant counterfeiter. That counterfeiter made a microchip that "breaks Lexmark's secret code (the authentication sequence)" and sold those microchips to "third-party cartridge remanufacturers, permitting them to replace Lexmark's chip with the SMARTEK chip on refurbished Prebate cartridges. These recycled cartridges are in turn sold to consumers as a low-cost alternative to new Lexmark toner cartridges." Thus, *Lexmark* establishes that SHA-1 based authentication schemes—described notably only in the context of authenticating printer ink cartridges for sale—**had in fact already been defeated by counterfeiters in 2004**. The defeat of an SHA-1 based authentication scheme by a counterfeiter was an event that in Martin's opinion was "so improbable that it will not happen." Dkt. 67-4 at 64. It is an event as likely as if "the rug [were] to jump up to the ceiling, but the finite, the possibility is so infinitesimal that it never happens. That's the case here, that the probability is so infinitesimal that it simply doesn't happen." *Id.* Yet, the case plaintiffs proffer actually shows that Martin's opinion in this regard is completely erroneous because, it happened. Thus, *Lexmark*, shows that Martin's opinion is plainly unreliable.

Plaintiff cites *Cruz v. Kumho Tire Co.*, 2015 U.S. Dist. LEXIS 61116, at *31-35 (N.D.N.Y. May 11, 2015) (D'Agostino, J.) for the proposition that Martin need not demonstrate that his alternative design was consistent with an industry standard or even to have tested such an alternate design, but as with *Lexmark, supra*, the holding of that case actually militates in favor

of precluding Martin.

In *Cruz*, the defendants sought to preclude a design expert because “each of her proposed alternative designs is unreliable and speculative because her designs have been neither tested nor utilized within the trucking industry.” *Id.* at *23. The Court discussed the analogous case of *Zaremba v. GMC*, 360 F.3d 355, 360 (2d Cir. 2004), in which a design expert’s opinion was excluded because: “the expert (1) had not examined or tested the vehicle; (2) made no drawing or model of his proposed alternative design; (3) did not test his design; (4) offered no calculations in support of the safety of his design; (5) had not subjected his alternative design to peer review and evaluation; and (6) presented no evidence that the automobile design community “accepted the untested propositions underlying his opinions.” Here, Martin had not examined an exemplar or the product schematic, Dkt. # 67-4 at 86, 99; he made no effort to produce a schematic or test his alternative design, *id.* at 253; he offered no calculations whatsoever, either in respect of safety or anything else concerning his design, see *id.*; he had not subjected his alternative design to peer review, *id.* at 29, 253; he made no effort to ascertain whether his authentication design was in use in the notebook computer industry, *id.* at 139, 155, 160.

Further, as in *Zaremba*, the only documentation Martin can point to is a memorandum from Texas Instruments that does not even refer to a tested HP notebook computer assembly. See *Cruz, supra* at 32, citing *Zaremba, supra* at 357 (“The only support the expert identified for his proposed design was a memorandum from General Motors that referred to testing of a design similar to the expert’s proposed design and concluded that the tested design would have improved certain performance aspects of the vehicle.”). Here, as in *Zaremba*, “[i]n the absence of drawings, models, calculations, or tests, it was not manifest error for the District Court to find that [the expert’s] testimony was insufficiently reliable.” *Id.*

On the other hand, the challenged expert design opinion in *Cruz* was admissible specifically because it was supported by the type of evidence that Martin failed to consider, making his opinions unreliable and inadmissible. In *Cruz*, the expert’s alternative design referred to United States Department of Transportation Final Reports “as well as other relevant industry literature.” *Cruz, supra* at *32. The expert performed “numerous engineering calculations regarding the strength and weight characteristics of her proposed alternative designs” and an “appropriate risk-utility analysis.” *Id.* The expert “constructed an exemplar reinforced front bumper built to her design specifications and attached to an exemplar heavy truck chassis.” *Id.* The expert also “patented an Energy Absorbing Front Frame Structure similar to her proposed bumper guard design.” *Id.* Again, by contrast, Martin consulted no other industry literature; performed no calculations; performed no risk-utility analysis; constructed and referenced no exemplars; and holds no patents concerning notebook computer batteries.

“Rule 702(d) has also been amended to emphasize that each expert opinion must stay within the bounds of what can be concluded from a reliable application of the expert’s basis and methodology. Judicial gatekeeping is essential because just as jurors may be unable, due to lack of specialized knowledge, to evaluate meaningfully the reliability of scientific and other methods underlying expert opinion, jurors may also lack the specialized knowledge to determine whether the conclusions of an expert go beyond what the expert’s basis and methodology may reliably support.” Committee Notes on Rules—2023 Amendment.

Courts applying the amendment to Rule 702 have held that the amendment requires the Court to carefully evaluate the sufficiency of the expert’s basis for testimony and application of methodology in order to exercise its gatekeeping function. *Silva v. Heil, Inc.*, 2023 U.S. Dist. LEXIS 163749, at *5 n.8 (E.D.N.Y. Sep. 14, 2023) (Brodie, J.) (excluding design defect witness

under amendment) (“in deciding these motions the Court is mindful of the proposed amendments’ purpose of emphasizing that the Court must focus on the expert’s opinion, and must find that the opinion actually proceeds from a reliable application of the methodology and explicitly weaving the Rule 104(a) standard into the text of Rule 702.”); *citing Zaremba*, *supra* at 358-59 (affirming district court’s exclusion of expert’s testimony concerning an untested alternative design which was not subject to peer review and did not have a known rate of error); *Gambardella v. Tricam Indus., Inc.*, 2020 U.S. Dist. LEXIS 169543, 2020 WL 5548825, at *6 (S.D.N.Y. Sept. 16, 2009) (barring expert testimony that a design addition would have made a product safer because the expert “provide[d] no basis for his assumption” nor “data or facts for his conclusion”). The motion to preclude Martin should be granted.

3. Plaintiff concedes Martin offers no opinion on warnings

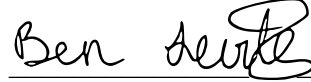
HP and Staples further moved to preclude Martin’s opinion that the HP notebook was defectively designed for failing to display an on-screen warning, because he offered no analysis of any proposed alternative warning.

Plaintiff clarifies that Martin—who admittedly is not a warnings or human factors expert, and who admittedly had never spoken to Marcellin—offers the opinion “that authentication (with or without a warning) would have prevented the fire.” Dkt. #72-5 at 19. The motion to preclude Martin should be granted.

CONCLUSION

For the foregoing reasons, the motion to preclude Martin should be granted.

Respectfully Submitted,
HP INC.,
STAPLES, INC.,
By their attorneys,

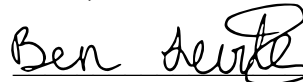


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CERTIFICATE OF SERVICE

I hereby certify that this document, filed through the ECF system, will be sent electronically to all counsel of record on Monday, June 16, 2025.



Benjamin Levites